

Cancer Morbidity in the United States

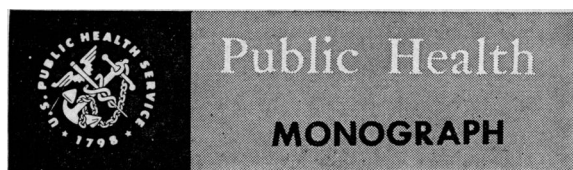
IN 1938 the National Cancer Institute initiated a series of studies of morbidity from cancer which finally included 10 metropolitan areas scattered throughout the United States. Approximately a decade later, during 1948 and 1949, the study was repeated in the same areas.

Part I of this monograph, dealing with variations in the incidence of cancer by age, sex, race, geographic region, marital status, primary site, and histological type, was published in July 1955. This publication completes the analysis and combines the data contained in part I with that in part II. A discussion of intercity variation in cancer incidence has been added to part I. Part II compares the 10-city data with data from other sources and also deals with trends in cancer morbidity during the decade between the two surveys, the association of cancer incidence and income class, stage of disease at diagnosis, comparison of death certificates and case reports, and interpretation of the age curve of the incidence of cancer.

In 1947, out of every 100,000 residents of the 10 survey areas, 430 had cancer at some time during the year, in 319 cancer had been newly diagnosed, and 149 died of cancer. Compared with 1937, the prevalence rate was 26 percent higher, the incidence rate was 30 percent higher, and the mortality rate was 19 percent higher. Adjustment for the changed age composition of the population indicates a residual increase in reported illness from cancer of 10 percent for prevalence, 14 percent for incidence, and 3 percent for mortality.

The incidence of a number of specific forms of cancer is associated with socioeconomic status. The most consistent relationship observed is a relatively high rate of cancer incidence among members of the lower income classes. This type of association was clearly evident for the upper alimentary tract (lip,

mouth, pharynx, esophagus, and stomach), pancreas, respiratory system (larynx and lung), and cervix uteri. In contrast to findings for the upper alimentary tract, the incidence of cancers of the lower alimentary tract (large intestine and rectum) appears to be unrelated to income class. Similarly, in contrast to cancer of the cervix uteri, there appears to be no



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The accompanying summary covers the principal findings presented in Public Health Monograph No. 56, published concurrently with this issue of Public Health Reports. The authors are with the National Cancer Institute, National Institutes of Health, Public Health Service.

Readers wishing the data in full may purchase copies of the monograph from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. A limited number of free copies are available to official agencies and others directly concerned on specific request to the Public Health Service. Copies will be found also in the libraries of professional schools and of the major universities and in selected public libraries.

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Dorn, Harold F., and Cutler, Sidney J.: Morbidity from cancer in the United States. Public Health Monograph No. 56 (PHS Pub. No. 590). 207 pages. Illustrated. U. S. Government Printing Office, Washington, D. C., 1958. Price \$1.

association between income and the incidence of endometrial cancer.

Specific information on the stage of disease at diagnosis was available on 4 out of every 5 newly diagnosed cancer cases. Of those with a specified stage, 51 percent were reported to be localized at the site of origin, 27 percent with involvement of regional tissues, and 22 percent with remote or diffuse metastases.

In addition to the inherent metastatic potential of tumors, the accessibility of the organ of origin to direct examination is an important influence on the likelihood of discovering a neoplasm in an early stage of development. Sixty-two percent of cancers that originated in accessible sites were diagnosed while localized, compared with only 38 percent of cancers originating in inaccessible sites. However, when skin cancer, which generally does not spread to other organs, is excluded, the proportion of accessible cancer diagnosed while localized is reduced to 49 percent.

For a number of sites, the average age of patients diagnosed while the tumor was localized at the site of origin was definitely younger than the average age of patients who remained undiagnosed until after the extension

of the tumor to regional tissues or metastasis to remote organs. This was true for cancers of the ovary, uterus, and breast in women, and for cancers of the rectum in both sexes. It is possible that for these neoplasms the metastatic potential is greater in older than in younger women. However, it seems more likely that the difference in age between localized and metastatic tumors reflects the effect of delay in diagnosis. Thus, it appears that for cancers of the female reproductive system and the rectum the percentage of tumors diagnosed while localized is subject to improvement through screening programs, regular physical examinations, and increased alertness on the part of the layman and the physician.

In contrast to cancers of the aforementioned sites, patients with localized cancers of the stomach and lung tended to be older than those with regional or remote metastases. It is unknown whether rapidly metastasizing tumors of the stomach and lung tend to develop in younger people or whether the younger observed average age of patients with advanced neoplasms simply results from the fact that rapidly spreading tumors become symptomatic relatively soon after onset.

Public Health Service Traineeships

A total of 551 professional public health workers are attending school during the academic year 1958-59 on traineeships awarded by the Public Health Service under title I of the Health Amendments Act of 1956.

Public health nurses form the largest category receiving training, with sanitary engineers, health educators, and physicians next in order.

The list announced by the Division of General Health Services, Public Health Service, as of December 10, 1958, follows:

Nurses.....	245	Veterinarians	15
Sanitary engineers.....	62	Nutritionists	14
Health educators.....	48	Dentists	13
Physicians	45	Laboratory personnel.....	13
Sanitarians	39	Medical social workers.....	8
Others in sanitary field.....	16	Dental hygienists	5
Statisticians	16	Miscellaneous	12

publications

Proceedings of the National Conference on Hospital-Acquired Staphylococcal Disease. *PHS Publication (unnumbered)*; 1958; 213 pages.

Papers presented by the speakers and recommendations of the working delegates appear in these proceedings. Reviewing what is known about the infections, delineating areas that need additional investigation, and mapping plans for a practical attack on the problem, the publication provides extensive resource material.

The Summary Report of Discussion Groups in Section 2 is being reprinted. A limited number of copies of the proceedings and of the reprints of the discussion group summary are available from Chief, Technical Reports and Library, Communicable Disease Center, 50 Seventh Street, NE., Atlanta 23, Ga.

Health Statistics From the U. S. National Health Survey. Concepts and definitions in the health household-interview survey. *PHS Publication No. 584-A3*; 1958; 29 pages; 30 cents.

Emphasizing the structure of the household interview, the first section discusses the questionnaire, the interviewer and respondent, and time references in the interview.

Concepts of morbidity (including unrefined data, sifting criteria, and diagnostic information), disability, and medical and dental care are explored in separate sections.

Definitions comprise the largest section of the book. They relate to general morbidity, disability, persons injured and accidents, hospitalization, medical and dental care, location of residence, and demographic, social, and economic terms.

The Missouri: Water and Land Development for the Nation. *PHS Publication No. 604*; 1958; by the Missouri Basin Interagency Committee; 32 pages; 55 cents.

A description of the Missouri River Basin Water Resources Development Program, this booklet discusses why it is needed, tells what

is being built and how it is being done, illustrates the benefits, explains the cooperative operation, and outlines what needs to be done to complete the development plan.

The aim of the booklet is to provide a nontechnical explanation to the general public of this development activity, which covers one-sixth of the Nation's area.

An Electron Microscopic Study of the Early Stages of Dentinogenesis. *PHS Publication No. 613*; by Marie U. Nylen and David B. Scott; 1958; 55 pages; 45 cents.

Reporting one of the first embryological studies made at the electron microscopic level, this book should attract the attention of teachers as well as researchers.

Structural changes undergone by a group of cells during their differentiation, the subsequent alterations that accompany the assumption of their tissue-forming activities, and the collagenous fibrillar elements that are elaborated as a result of cellular function are depicted.

CO and You. Carbon monoxide poisoning. *PHS Publication No. 611 (Health Information Series No. 91)*; 1958; 8 pages; single copies 10 cents; \$5 per 100. Discusses symptoms and dangers, possible sources, and first aid. Designed for educational efforts in accident prevention.

Highlights of Progress in Research on Neurologic Disorders, 1957. *PHS Publication No. 597*; 1958; 16 pages; 15 cents.

Selected items on program developments and research studies conducted or supported by the National Institute of Neurological Diseases and Blindness, Public Health Service, during 1957 are compiled in four categories: basic research developments, collaborative and cooperative programs, advances in neurosurgery, and progress in individual disease categories.

Highlighted are advances relating to diagnosis of eye disorders, surgical treatment of temporal lobe epilepsy, biochemical findings pertaining to multiple sclerosis, cerebral palsy and parkinsonism, basic research relating to the regeneration of nerve tissue, improvement of a brain tumor detection device, and knowledge of the structure, function, and chemistry of the brain.

Selected References on Cardiovascular Disease. An annotated bibliography for nurses. *PHS Publication No. 472 (Public Health Bibliography Series No. 15)*; 1958; 72 pages; 30 cents.

A timesaving guide for nurses seeking information for their own and their patients' use, this completely revised bibliography supersedes the 1956 edition.

References are arranged in sections according to the main types of cardiovascular disease and to other major aspects such as public health and rehabilitation. A selection of films and other audiovisual aids is included. Annotations are designed to assist the nurse in gauging the usefulness of each listed item.

Insects That Carry Disease. *PHS Publication No. 594 (Health Information Series No. 90)*; 1958; 11 pages; single copies, 10 cents, \$5 per 100. Warns against houseflies, cockroaches, mosquitoes, fleas, and ticks as vectors of disease. Recommends measures for their control.

This section carries announcements of new publications prepared by the Public Health Service and of selected publications prepared with Federal support.

Unless otherwise indicated, publications for which prices are quoted are for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Orders should be accompanied by cash, check, or money order and should fully identify the publication. Public Health Service publications which do not carry price quotations, as well as single sample copies of those for which prices are shown, can be obtained without charge from the Public Inquiries Branch, Office of Information, Public Health Service, Washington 25, D. C.

The Public Health Service does not supply publications other than its own.